Abstract

Voiced signal is a signal which is consist of two period that is speech and non speech period. On speech period, the voiced signal can be listened directly. However, on non speech period the voiced signal is on silence condition or well known as silence period. Both of the period can be seen clearly on the voice signal. On the speech period, the shape of voiced signal is just like random signal which is have a value but on the non speech period, the voiced signal is almost like a linear line which is have the value almost into 0. Generally, if we want to detect there is some active period or not on the voice signal, some algorithm are used and the algorithm well known as speech/non speech detection, whereas the process is called voiced activity detection.

Noise can breaking and decreasing the quality of the voceid signal, in addition noise can give some impact on the speech/non speech detection such as the error rate can be so high.

On this final project, writer trying to use a new method to find solution from the problem which had been written before, the method which is used is Usage of Walsh Basis Function on Speech/Non Speech Detection To improve Detection Level of Speech/Non speech on voice activity detection. With this method, we hope that the detection rate from speech/non speech can be known even there is noise on the voiced signal. From this final research, the detection of speech and non speech using walsh basis function is about 70%, this result show that this propose algorithm is more better than using ultrasonic Doppler sensor method which is capable to detects speech and non speech about 60%.

***Key words** : speech/non speech detection, voice activity detection, walsh basis function, noise*